

CLAIMS

1. Process for the preparation of an oxidic catalyst composition comprising a trivalent metal, a divalent metal and - calculated as oxide and based on the total weight of the composition – more than 18 wt% of one or more compounds selected from the group consisting of rare earth metal compounds, phosphorus compounds, and transition metal compounds, which process comprises the following steps:
 - a) preparing a sodium-free precursor solution comprising (i) a compound 1 being a trivalent metal salt, (ii) a compound 2 being a divalent metal salt, and (iii) a compound 3 which is different from compounds 1 and 2 and is selected from the group consisting of rare earth metal salts, water-soluble phosphorus compounds, and transition metal salts,
 - b) forming a precipitate from the solution of step a) by adding a sodium-free base to the precursor solution,
 - c) optionally aging the precipitate,
 - d) drying the precipitate, and
 - e) calcining the dried precipitate.
2. A process according to claim 1 wherein the sodium-free base added in step b) is ammonium hydroxide.
3. A process according to claim 1 or 2 wherein the precipitate is aged in step c) without anionic clay being formed.
4. A process according to claim 1 wherein the divalent metal of compound 2 is selected from the group consisting of Mg, Ca, Ba, Zn, Ni, Cu, Co, Fe, Mn, and mixtures thereof.
5. A process according to any one of the preceding claims wherein the trivalent metal of compound 1 is selected from the group consisting of Al, Ga, Fe, Cr, and mixtures thereof.

6. A process according to any one of the preceding claims wherein compound 3 is a compound comprising a metal selected from the group consisting of Cu, Zn, Zr, Ti, Ni, Co, Fe, Mn, Cr, Mo, W, V, Pt, Ru, Rh, Ce, La, and mixtures thereof.
7. A process according to any one of the preceding claims wherein compound 3 is present in the composition in a total amount of 18 to 60 wt%, calculated as oxide and based on the total composition.
8. Oxidic catalyst composition obtainable by the process according to any one of the preceding claims.
9. An oxidic catalyst composition according to claim 8 wherein the divalent metal is Mg and the MgO reflection at 43° 2-theta in the Powder X-Ray Diffraction pattern - measured with Cu K- α radiation - has a full width at half maximum of less than 1.5° 2-theta.
10. An oxidic catalyst composition according to claim 9 wherein the full width at half maximum is less than 1.0° 2-theta, preferably less than 0.6° 2-theta, more preferably less than 0.4° 2-theta.
11. Catalyst particle comprising the oxidic catalyst composition according to any one of claims 8-10, a matrix or filler material, and a molecular sieve.
12. Use of the oxidic catalyst composition of any one of claims 8-10 or the catalyst particle of claim 11 in a fluid catalytic cracking process.